

Three Giant Locomotives in Tug-of-war

STEEL monsters were pitted against one another in a thrilling test of strength recently at Erie, Pa., watched by an excited group of spectators comprising 150 leading railway men of the United States and Canada.

The contest resembled a schoolboy tug-of-war, except that the locomotives pushed against each other, instead of pulling in opposite directions.

The outcome of the test, which was one of a series to which a new type of gearless electric passenger locomotive was submitted, resulted in a spectacle which was described by F. J. Sprague, consulting engineer and known as the "father of the railway electrification," as the "most magnificent exhibition of electricity applied to railroads which this country has ever seen."

Two modern steam engines of the latest type were coupled together and switched to a spur, where the electric locomotive awaited them. It was a case of a "double header" against a lone opponent.

The "double header" and the electric locomotive were coupled together, facing each other.

At a given signal from the supervisor the steam engines got under way and began shoving the electric ahead of them along the straightway track; then the current was gradually turned on the electric, while the engineers of both steam locomotives opened their throttles to the last notch.

What was the surprise of the crowd to see the steam engines slowly but surely lose momentum and finally come to a complete stop, still with their throttles wide, puffing and chugging under an extraordinary strain. Then a great cheer went up from the crowd as they saw the steam engines forced backward, first only by inches, but gradually, as the full power of the electric



was brought into play, the procession became almost a rout. When the test ended a few minutes later the steam locomotives were moving steadily backward and the electric locomotive was declared the victor.

This new locomotive is said to be one of the most powerful passenger locomotives in the world. It uses 3,000 volts direct current and has horsepower of 3,240. There are fourteen axles on which are mounted motors, each of which direct connection turns one set of driving wheels. The locomotive is 78 feet long, 17 feet high and weighs 265 tons, of which weight 229 tons rest on the drivers. The locomotives have been designed for handling in normal service a twelve car train weighing 960 tons trailing against a grade of two per cent at twenty-five miles per hour. Tests have shown that the gearless electric locomotive operates at 10 per cent higher efficiency at fifty miles per hour than the geared type.

The center cab is occupied by an oil fired steam boiler for heating passenger trains, with accessories, including tanks for oil and water, circulating pumps and a motor driven blower for furnishing forced air draft.

A Warehouse Where Wool Is King

THE largest warehouse in the world is devoted to the storage of wool. Buenos Aires is the city which boasts this building, which is crammed to the roof with wool from the sheep ranches of Argentina. At times, the amount of wool in the warehouse is more than 50,000,000 pounds, ranging in quality all the way

from the very finest fleeces to the coarse grades suitable for carpet wools.

The floor space of the Buenos Aires warehouse comprises more than ten acres, and every available inch of it is utilized for storage. Some idea of the size of the building may be gained from the fact that three railroad tracks run through it. The wool is the property of many different dealers and ranch owners scattered throughout Argentina and is divided into lots and graded according to quality, although an untrained visitor would take the enormous stock to be without dividing lines. The wool is shipped to England or the United States. Buyers from other countries are again making inquiries for South American wool. The average quality of South American wool is improving and commands a higher comparative price than Australian, South African and American wools.

South American wool growers are able to realize prices for it and have prospered amazingly.



A Lesson From France

"A THING of beauty," said the English poet, Keats, "is a joy forever." The tree-lined French roads recall to the appreciative observer the foregoing truism, for they are both beautiful and useful.

In the spring and summer the fields of France are dotted with poppies while the roads are a maze of bloom. A few months go by and the trees are laden with fruit. When the fruit ripens, any passer-by may help himself without fear of being ordered to move along.

The land from which Lafayette came has a glorious custom that any people may well emulate. From infancy boys and girls are taught not to waste the seeds of fruit and are urged to plant them for future generations. Consequently a dead tree on a roadside is immediately replaced.

To the majority of our American youth a seed is a nuisance and should be lightly tossed aside with no thought of its proper destiny. None of our roads have a double fringe of fruit trees.

In many respects France is now a frugal land, though in former days waste reduced it to near-poverty. Experience served as its inexorable teacher.

Rev. Percy Stickney Grant's sympathies with the "Reds" have landed him in difficulties with his church authorities. One of his parishioners say: "When Dr. Grant referred to the deported anarchists as being in the same class as the Pilgrim Fathers, he really didn't know anything about the anarchists. He had no idea of the principles of violence to which they had pledged themselves. He thought them simply a lot of harmless idealists, and he was surprised to learn later the kind of people they really were."

Senator Vest's Enduring Monument

By CARL SCHURZ LOWDEN

WHO can fashion his own destiny? A man may give the best years of his life to his chosen career with the fond hope that his accomplishments along that line will make for him a memorial; yet these may be forgotten within a decade after his departure while something he had considered insignificant becomes vividly associated with his name.

Before his death in 1904 George Graham Vest, who spent a quarter of a century as a Missouri member of the United States Senate, wished to be remembered by succeeding generations as a great statesman. However, the addresses by the Senator are forgotten, whereas a few words he spoke to a jury in the days that preceded his long service at Washington have become his enduring monument.

It was a dog trial. One man had killed another's dog and the owner had gone to law about it. Vest, the attorney for the plaintiff, took few notes and did not seem interested in the witnesses or their testimony. When the last witness had been examined and the counsel for the defense had made his closing argument to the jury of twelve Missourians, Vest arose and, in a voice charged with sympathy, said:

"The best friend a man has in this world may turn against him and become his enemy. His son or daughter that he has reared with loving care may prove ungrateful. Those who are nearest and dearest to us, those whom we trust with our happiness and our good name, may become traitors to their faith.

"The money that a man has he may lose. It flies away from him, perhaps, when he needs it most. A man's reputation may be sacrificed in a moment of ill-considered action. The people who are prone to fall on their knees to do us honor when success is with us may be the first to throw the stone of malice when failure settles its cloud upon our heads.

"The one absolute, unselfish friend that a man can have in this selfish world, the one that never deserts him, the one that never proves ungrateful or treacherous, is his dog.

"A man's dog stands by him in prosperity and in poverty, in health and in sickness. He will sleep on the cold ground, where the wintry winds blow and the snow drives fiercely, if only he can be near his master's side. He will kiss the hand that has no food to offer, he will lick the wounds and sores that come in the encounter with the roughness of the world. He guards the sleep of his pauper master as if he were a prince. When all other friends desert, he remains.

"When riches take wings and reputation falls to pieces, he is as constant in his love as the sun in its journey through the heavens. If fortune drives the master forth an outcast in the world, friendless and homeless, the faithful dog asks no higher privilege than that of accompanying him, to guard him against danger, to fight against his enemies.

"And when the last scene of all comes, and death takes his master in its embrace and his body is laid away in the cold ground, no matter if all other friends pursue their way, there by the graveside will the noble dog be found, his head between his paws, his eyes sad but open in alert watchfulness, faithful and true even to death."

This eulogy of the dog made the heart of each jurymen throb a bit faster as he recalled examples of the animal's wonderful devotion. There were few dry eyes in that audience. Vest himself, the man who afterward gave hundreds of addresses in the United States Senate, could not know, when a verdict for the plaintiff was announced, that he had built a greater memorial there in a commonplace courtroom than he would ever establish in any legislative hall.

Dr. George F. Kunz, gem expert, says that diamonds have been purchased in such large quantities by shipyard workers, municipal employes and agricultural employes, that there was no choice for the Price but to go up.

The Ponds of Cape Breton—By EUNICE BUCHANAN

IN CONTRAST to the many charms of Cape Breton's rugged scenery are its placid fresh water ponds, which are separated from the sea by a few yards of beach and a low bank. These lonely waters are frequented by wild ducks, and the fishes are safe from the prowling tourist.

Within a few minutes walk of each other are three of these ponds, all owned by Dr. Alexander Graham Bell and his family. Each pond has a distinct interest of its own. The first is walled by a steep, and densely wooded hill, and the fleecy clouds are reflected in its dark depths, while in a shady corner is a patch of white water lilies.

On the edge of the middle pond is moored a house boat which is fitted with modern comforts, and is the retreat of Dr. Bell when he wishes to meditate in seclusion. Here ends a line of telephone which winds through the forest connecting its inventor with his home on the point. On the sea beach, in front of the house boat we saw several harmless brown snakes enjoying the sunny solitude. Round this pond which harbors the boat, a rustic path winds into the woods and up the mountain, sometimes crossed by one of the innumerable rills which feed the ponds.

The third pond differs in scenic grandeur from the other two. In the background a lofty white cliff stands like a sentinel over the stillness. It is called Lot's Wife.

Tiny streams of the overflow trickle across the beach into the Great Bras d'Or which is really an arm of the Atlantic, for Cape Breton is an island into which the ocean drives its great tentacles where they are called lakes. One arm, the Strait of Canso, embraces the island, thus severing it from the mainland of Nova Scotia.

